

**5,5-Pentamethylene-3-hydantoinacetic acid**  
See 1,3-Diazaspiro[4.5]decane-3-acetic acid, 2,4-dioxo- [834-45-7]

**2,3-Pentamethyleneindole**  
See Cyclohept[b]indole, 5,6,7,8,9,10-hexahydro- [2047-89-4]

**4,4-Pentamethyleneisoxazolidine**  
See 2-Oxa-3-azaspiro[4.5]decane [176-71-6]

**Pentamethylene nitrate**  
See 1,5-Pentanediol, dinitrate [3457-92-9]

**Pentamethylene nitroxide**  
See 1-Piperidinyloxy [6146-40-3]

**2,2-Pentamethylene-Δ<sup>2</sup>-1,3,4-oxadiazoline**  
See 4-Oxa-1,2-diazaspiro[4.5]dec-2-ene [5678-43-3]

**3,3-Pentamethyleneoxaziridine**  
See 1-Oxa-2-azaspiro[2.5]octane [185-80-8]

**5,5-Pentamethyleneoxazolidine**  
See 1-Oxa-3-azaspiro[4.5]decane [176-95-4]

**2,3-Pentamethyleneoxazolino[4,5-b]phenoxazine**  
See 15H-Azepino[2,1'-2,3]oxazolo[4,5-b]phenoxazine, 7a,8,9,10,11,12-hexahydro- [18538-42-6]

**Pentamethylene oxide**  
See 2H-Pyran, tetrahydro- [142-68-7]

**3,3-Pentamethylenepiperazine-2,6-dione**  
See 1,4-Diazaspiro[5.5]undecane-3,5-dione [5699-91-2]

**2,2-Pentamethylenepiperidine**  
See 1-Azaspiro[5.5]undecane [180-73-4]

**4,4-Pentamethylenepiperidine**  
See 3-Azaspiro[5.5]undecane [180-44-9]

**8,8-Pentamethylenepseudotheophylline**  
See Spiro[cyclohexane-1,8'-[8H]purine]-2',6'(1'H, 3'H)-dione, 1',3'-dimethyl- [727-11-7]

**8,8-Pentamethylenepseudoxanthine**  
See Spiro[cyclohexane-1,8'-[8H]purine]-2',6'(1'H, 3'H)-dione [4669-13-0]

**8,9-Pentamethylenepurine**  
See 6H-Azepino[1,2-e]purine, 7,8,9,10-tetrahydro- [4425-22-3]

**3,3-Pentamethylenepyridine**  
See 1,2,3,4-tetrahydro-  
See 2-Azaspiro[5.5]undec-3-ene [4444-50-2]

**4,5-Pentamethylenepyrimidine**  
See 5H-Cycloheptapyrimidine, 6,7,8,9-tetrahydro- [4436-63-9]

**2,2-Pentamethylenepyrrolidine**  
See 1-Azaspiro[4.5]decane [176-80-7]

**7,7-Pentamethylene-7H-pyrrolo[1,2-a]imidazole**  
See Spiro[cyclohexane-1,7'-[7H]pyrrolo[1,2-a]imidazole] [13555-08-3]

**1,1-Pentamethylene-1H-pyrrolo[2,3-b]pyridinium**  
See Spiro[piperidine-1,1'-[1H]pyrrolo[2,3-b]pyridinium] [7127-41-5]

**2,2(1H)-Pentamethylenequinazoline**  
See Spiro[cyclohexane-1,2'(1'H)-quinazoline] [179-18-0]

**2,3-Pentamethylenequinolin-4(1H)-one**  
See 11H-Cyclohepta[b]quinolin-11-one, 5,6,7,8,9,10-hexahydro- [5220-39-3]

**Pentamethylene sulfide**  
See 2H-Thiopyran, tetrahydro- [1613-51-0]

**Pentamethylene sulfone**  
See 2H-Thiopyran, tetrahydro-, 1,1-dioxide [4988-33-4]

**Pentamethylene sulfoxide**  
See 2H-Thiopyran, tetrahydro-, 1-oxide [4988-34-5]

**Pentamethylenetetramine**  
See 1,3,5,7-Tetraazabicyclo[3.3.1]nonane, 3,7-dinitroso- [101-25-7]

**Pentamethylenetetramine sulfone**  
See 2-Thia-1,3,5,7-tetraazatricyclo[3.3.1.1<sup>3,7</sup>]decane, 2,2-dioxide [7020-51-1]

**Pentamethylene tetraanthogen**  
See 1,6,12,17-Tetraoxa-3,4,14,15-tetrathiacyclo-dicosane-2,5,13,16-tetrathione [35087-07-1]

**Pentamethylenetetrazole**  
See 5H-Tetrazolo[1,5-a]azepine, 6,7,8,9-tetrahydro- [54-95-5]

**7,8-Pentamethylenetheophylline**  
See 1H-Azepino[2,1-f]purine-2,4(3H,6H)-dione, 7,8,9,10-tetrahydro-1,3-dimethyl- [3922-49-4]

**3,4-Pentamethylene-2H-1,2,6-thiadiazine**  
See Cyclohepta[c]1,2,6-thiadiazine, 1,5,6,7,8,9-hexahydro- [6005-48-7]

**2,2-Pentamethylene-3-thiazoline**  
See 1-Thia-4-azaspiro[4.5]dec-3-ene [4704-64-7]

**5,5-Pentamethylene-3-thiazoline**  
See 1-Thia-3-azaspiro[4.5]dec-3-ene [4704-63-6]

**2,3-Pentamethylenethiazolium**  
See 5H-Thiazolo[3,2-a]azepinium, 6,7,8,9-tetrahydro- [6571-90-0]

**2,2-Pentamethylenethietane**  
See 1-Thiaspiro[3.5]nonane [7078-21-9]

**Pentamethylenethiuram tetrasulfide**  
See 1,2,3,4-Tetrathia-6,12-diazacyclotridecane-5,13-dithione [7614-71-3]

**1,1-Pentamethyleneurea**  
See 3-phenyl-  
See 1-Piperidinecarboxamide, N-phenyl- [2645-36-5]

**Pentamid**  
See also Polyamides

**Pentamidine**  
See Benzenecarboximidamide, 4,4'-[1,5-pentanediy]bis(oxy)bis- [100-33-4]

**Pentamidine isethionate**  
See Ethanesulfonic acid, 2-hydroxy-, compd. with 4,4'-[1,5-pentanediy]bis(oxy)bis- [benzenecarboximidamide] (2:1) [140-64-7]

**Pentamine**  
See Ethanaminium, 2,2'-(methylimino)bis(N-ethyl-N,N-dimethyl-, dibromide [306-53-6])

**Pentamorphone**  
See Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-hydroxy-17-methyl-14-(pentylamino)-, (5α)- [68616-83-1]

**Pentamustine**  
See Urea, N-(2-chloroethyl)-N'-(2,2-dimethylpropyl)-N-nitroso- [73105-03-0]

## Pentamycin

See Oxacyclooctacos-17,19,21,23,25-pentaen-2-one, 4,6,8,10,12,14,15,16,27-nonahydroxy-3-[(1R)-1-hydroxyhexyl]-17,28-dimethyl-, (3R,4S,6S,8S,10R,12R,14R,15R,16R,17E,19E,21E,23E,25E,27S,28R)- [6834-98-6]

## Pentanal [110-62-3]

Acyclic acetals of pentanal are indexed like other ethers (see notes at *Acetals*, *Ethers*). Cyclic acetals are indexed at the ring names or, if derivatives of stereoparents, at the stereoparent headings, e.g., 1,3-Dioxolane, 2-butyl-, Androstane-1,2-diol, cyclic pentylidene acetal; Cholest-4-en-3-one, 6,7-[pentylidenebis(oxy)]-, D-Glucitol, 4,6-O-pentylidene-

See *Pentanoic acid* headings for many nomenclature cross-references that will also be useful when searching for pentanal derivatives

## Pentanamide [626-97-1]

See *Pentanoic acid* headings for many nomenclature cross-references that will also be useful when searching for pentanamide derivatives

—, N-[6-[(aminocarbonyl)amino]methylene]-3-(2-amino-1,4,5,6-tetrahydro-6-hydroxy-4-pyrimidinyl)-9,12-bis(hydroxymethyl)-2,5,8,11,14-penta-oxo-1,4,7,10,13-pentazacyclohexadec-15-yl]-5-[(aminoimino)methyl]amino]-3-(methylamino)-

For specific stereoisomers see such headings as *Antibiotic LL-BM 547β* [61394-76-1]

## 1-Pentanamine [110-58-7]

1-Pentanamine derivatives in which a cyclic parent is attached to a carbon atom by a single bond are indexed at conjunctive names based on the cyclic parent, e.g., 1H-Indole-2-pentanamine; Benzenepropanamine, γ-ethyl-. See also notes at *Amines*; *Ethanamine*

—, N,N-bis(3-aminopropyl)-

See 1,3-Propanediamine, N-(3-aminopropyl)-N-pentyl- [1555-69-7]

—, 1-butyl-

See 5-Nonanamine [2198-45-0]

—, 1-ethenyl-

See 1-Hepten-3-amine [5963-71-3]

—, N-pentyl-N-(2-phenylethyl)-

See Benzenethanamine, N,N-dipentyl- [5714-97-6]

—, N-pentyl-N-(phenylmethyl)-

See Benzenemethanamine, N,N-dipentyl- [6539-59-9]

## Pentanate

See *Propanoic acid*, 2,2-dichloro-, 2-(2,4,5-trichlorophenoxy)ethyl ester [136-25-4]

## Pentane

—, 2,2-bis(4-hydroxyphenyl)-

See Phenol, 4,4'-(1-methylbutylidene)bis- [4204-58-4]

—, 1-cyclohexyl-

See Cyclohexane, pentyl- [4292-92-6]

—, 1-cyclopentyl-

See Cyclopentane, pentyl- [3741-00-2]

—, 1,2-epoxy-

See Oxirane, propyl- [1003-14-1]

—, 1,3-epoxy-

See Oxetane, 2-ethyl- [4737-47-7]

—, 2,3-epoxy-

See Oxirane, 2-ethyl-3-methyl- [4016-15-3]

—, 1,2-epoxy-3-methoxy-1-phenyl-

See Oxirane, 2-(1-methoxypropyl)-3-phenyl- [4797-02-8]

—, 1-phenyl-

See Benzene, pentyl- [538-68-1]

—, 1,3,5-trinitrocinoyl-

See 1,7-Heptanedione, 1,7-di-3-pyridinyl-4-(3-pyridinylcarbonyl)- [5617-56-1]

## iso-Pentane

See Butane, 2-methyl- [78-78-4]

## Pentane-2-azocyclohexane

See Diazene, cyclohexyl(1-methylbutyl)- [18538-29-9]

## Pentane-1-azoethane

See Diazene, ethylpentyl- [27444-20-8]

## Pentane-2-azoethane

See Diazene, ethyl(1-methylbutyl)- [18538-30-2]

## Pentane-2-azomethane

See Diazene, methyl(1-methylbutyl)- [27793-39-1]

## Pentane-2-azo-1'-propane

See Diazene, (1-methylbutyl)propyl- [25743-41-3]

## 1-Pentaneboronic acid

See Boronic acid, pentyl- [4737-50-2]

## 1-Pentanecarboxylic acid

See Hexanoic acid [142-62-1]

## Pentanedial

cyclic bis(1,2-cyclopentanedial acetal) —

see 4H-Cyclopenta-1,3-dioxole, 2,2'-(1,3-propanediyl)bis(tetrahydro- [21962-41-4])

cyclic bis(1,2-ethanedial acetal) —

see 1,3-Dioxolane, 2,2'-(1,3-propanediyl)bis- [6543-04-0]

## Pentanediamide

—, 3-ethyl-N,N'-bis[1-[4-(1-isocyanato-1-methylethyl)phenyl]-1-methylethyl]-3-[2-[[1-[4-(1-isocyanato-1-methylethyl)phenyl]-1-methylethyl]amino]-2-oxoethyl]-

See also Takenate D 181N [167290-61-1]

## 1,1-Pentanedicarboxylic acid

See Propanedioic acid, butyl- [534-59-8]

—, 4-methyl-

See Propanedioic acid, (3-methylbutyl)- [616-87-5]

—, 4-oxo-2-phenyl-

See Propanedioic acid, (3-oxo-1-phenylbutyl)- [4354-90-9]

## 1,2-Pentanedicarboxylic acid

See Butanedioic acid, propyl- [618-57-5]

—, 3-methyl-

See Butanedioic acid, (1-methylpropyl)- [5653-98-5]

—, 4-methyl-

See Butanedioic acid, (2-methylpropyl)- [5702-99-8]

—, 4-oxo-

See Butanedioic acid, (2-oxopropyl)- [1188-20-1]

## 1,3-Pentanedicarboxylic acid

See Pentanedioic acid, 2-ethyl- [617-26-5]

## 1,5-Pentanedicarboxylic acid

See Heptanedioic acid [111-16-0]

## 2,2-Pentanedicarboxylic acid

See Propanedioic acid, methylpropyl- [4371-03-3]

## 2,3-Pentanedicarboxylic acid

See Butanedioic acid, 2-ethyl-3-methyl-

[1186-78-3]

—, 3-ethyl-

See Butanedioic acid, 2,2-diethyl-3-methyl-

[2103-17-5]

## 3,3-Pentanedicarboxylic acid

See Propanedioic acid, diethyl- [510-20-3]

—, 2,4-dimethyl-

See Propanedioic acid, bis(1-methylethyl)-

[1735-09-7]

—, 2-methyl-

See Propanedioic acid, ethyl(1-methylethyl)-

[1735-08-6]

—, 1-phenyl-

See Propanedioic acid, ethyl(2-phenylethyl)-

[4440-05-5]

## Pentanedioic acid

cyclic 1,3-propanediyl ester —

see 1,5-Dioxecane-6,10-dione [772-81-6]

—, 2-amino-

(S)- — see L-Glutamic acid [56-86-0]

—, 2-carboxy-

See 1,1,3-Propanetricarboxylic acid [4756-09-6]

—, 2-(carboxymethyl)-

See 1,2,4-Butanetricarboxylic acid [923-42-2]

—, 2-carboxy-4-methyl-

See 1,1,3-Butanetricarboxylic acid [4435-47-6]

—, 2,4-dibutyl-2,4-dicarboxy-

See 5,5,7,7-Undecanetetra-carboxylic acid [6785-29-1]

—, 2-hydroxy-

γ-lactone — see 2-Furancarboxylic acid, tetrahydro-5-oxo- [4344-84-7]

—, 2-(2-hydroxycyclopentyl)-

γ-lactone — see 2H-Cyclopenta[b]furan-3-

propanoic acid, hexahydro-2-oxo-

[5807-37-4]

—, 2-(2-hydroxyethyl)-

γ-lactone — see 3-Furanpropanoic acid, tetrahydro-2-oxo- [936-83-4]

—, 3-(1-hydroxyethyl)-

γ-lactone — see 3-Furanacetic acid, tetrahydro-2-methyl-5-oxo-

[27203-31-2]

—, 2-hydroxy-2-(2-hydroxyethyl)-

di-γ-lactone — see 1,7-Dioxaspiro[4.4]nonane-2,6-dione [27203-32-3]

—, 2-[hydroxy(2-hydroxyphenyl)methylene]-

di-δ-lactone — see 2H,5H-Pyrano[3,2-c][1]-

benzopyran-2,5-dione, 3,4-dihydro-

[5807-40-9]

—, 2-[(2-hydroxyphenyl)methylene]-

δ-lactone — see 2H-1-Benzopyran-3-propanoic acid, 2-oxo- [6537-51-5]

## 1,3-Pentanediol

—, 2,2,4-trimethyl-

cyclic ester with boric acid (H<sub>3</sub>BO<sub>3</sub>) —

see 1,3,2-Dioxaborinane, 2-hydroxy-5,5-

dimethyl-4-(1-methylethyl)- [4737-53-5]

## 2,4-Pentanediol [625-69-4]

Cyclic derivatives of 2,4-pentanediol are indexed at the ring names; thus, the cyclic sulfite is indexed at 1,3,2-Dioxathiane, 4,6-dimethyl-, 2-oxide [4727-93-9]

—, 2-methyl-

cyclic ester with boric acid (H<sub>3</sub>BO<sub>3</sub>) —

see 1,3,2-Dioxaborinane, 2-hydroxy-4,4,6-

trimethyl- [78-60-4]

## 1,5-Pentanedione

—, 1,5-(1,1'-ferrocenediyl)-

See Ferrocene, 1,1'-(1,5-dioxo-1,5-pentanediy)-

[12242-61-4]

## 2,4-Pentanedione

See also 3-Penten-2-one, 4-hydroxy- [1522-20-9]

## 2,4-Pentanedione [123-54-6], compounds

Specific coordination compounds containing the 2,4-pentanedionato ligand are indexed only at the coordination headings, e.g., Zinc, (benzenamine)bis(2,4-pentanedionato-O,O')- [59828-79-4]. Nonspecific coordination compounds containing this ligand are indexed here and at the element headings. Specific coordination compounds containing other ligands derived from acetylacetone, e.g., the neutral ligand, are indexed here as well as at the specific coordination headings

## 2,4-Pentanedione, hydrazones

mono[(aminoiminomethyl)hydrazone] —

see Hydrazinecarboximidamide, 2-(1-methyl-

3-oxobutylidene)- [4362-90-7]

## 2,4-Pentanedione

—, 1,1,1,5,5,5-hexafluoro- [1522-22-1]

Specific coordination compounds containing the 1,1,1,5,5,5-hexafluoro-2,4-pentanedionato ligand are indexed only at the coordination headings, e.g., Cobalt, bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-O,O')-, (T-4)- [19648-83-0]. Nonspecific coordination compounds containing this ligand are indexed here and at the element headings. Specific coordination compounds containing other ligands derived from 1,1,1,5,5,5-hexafluoro-2,4-pentanedione, e.g., the neutral ligand, are indexed here as well as at the specific coordination headings

## Pentanedioyl dichloride

See also 2H-Pyran-2-one, 6,6-dichlorotetrahydro-

[4648-93-5]

## 1,5-Pentanediphosphonic acid

See Phosphonic acid, 1,5-pentanediy]bis-

[4672-25-7]

## Pentanenitrile [110-59-8]